

**METHOD OF DECODING TWO-CHANNEL MATRIX ENCODED AUDIO TO
RECONSTRUCT MULTICHANNEL AUDIO**

ABSTRACT OF THE INVENTION

5 The present invention provides a method of decoding two-channel matrix encoded audio to reconstruct multichannel audio that more closely approximates a discrete surround-sound presentation. This is accomplished by subband filtering the two-channel matrix encoded audio, mapping
10 each of the subband signals into an expanded sound field to produce multichannel subband signals, and synthesizing those subband signals to reconstruct multichannel audio. By steering the subbands separately about an expanded sound field, various sounds can be simultaneously
15 positioned about the sound field at different points allowing for more accurate placement and more distinct definition of each sound element.

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